REQUEST FOR BID NOTICE

TO RECEIVE A BID PACKAGE, BIDDER MAY EITHER DOWNLOAD THE BID FROM THE AUTHORITY'S WEBSITE AT http://www.state.nj.us/turnpike/purchasing.html OR REQUEST A BID BY COMPLETING THIS FORM AND FAXING IT TO THE NUMBER STATED BELOW FOR RECORD KEEPING PURPOSES. WE REQUEST THAT THE BIDDER COMPLETE THIS FORM AND RETURN TO US, EVEN WHEN BIDDER IS DOWNLOADING THE BID. THIS IS THE ONLY NOTICE OF BIDDING FOR THE FOLLOWING GOODS / SERVICES YOU WILL RECEIVE.

THE NEW JERSEY TURNPIKE AUTHORITY

PROCUREMENT AND MATERIALS MANAGEMENT DEPARTMENT

New Jersey Turnpike Administrative Offices
P.O. Box 5042
581 Main Street
Woodbridge, New Jersey 07095-5042
Tel. - 732-750-5300 Fax - 732-750-5399

REQUEST FOR BID

TITLE: **MAINTENANCE OF VENTILATING & AIR CONDITIONING EQUIPMENT**
MANDATORY SITE VISIT

BID NO: **RM-121895**

DUE DATE: **3-31-16**

TIME: **11:30 AM**

SUBMIT BIDS BEFORE THE DUE DATE AND TIME TO THE ABOVE ADDRESS

BIDDER INFORMATION (PLEASE PRINT)

_____
NAME OF BIDDING ENTITY

_____
ADDRESS

_____
CITY, STATE AND ZIP CODE

_____
E-MAIL ADDRESS

_____ _____
REPRESENTATIVE TO CONTACT-NAME & TITLE TELEPHONE NO.

_____ _____
FEDERAL TAX I.D. NO. or TAXPAYER I.D. NO. FAX NO

☐ **WE HAVE DOWNLOADED THE BID FROM THE AUTHORITY WEBSITE**

THE NEW JERSEY TURNPIKE AUTHORITY

PROCUREMENT AND MATERIALS MANAGEMENT DEPARTMENT

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(TO BE COMPLETED BY THE BIDDER)
Please Print

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_____
ADDRESS

_____
CITY, STATE AND ZIP CODE

_____
E-MAIL ADDRESS

_____ _____
REPRESENTATIVE TO CONTACT-NAME & TITLE TELEPHONE NO.

_____ _____
FEDERAL TAX I.D. NO. or TAXPAYER I.D. NO. FAX NO.

_____BUSINESS CORPORATION_____PARTNERSHIP_____INDIVIDUAL

_____OTHER (SPECIFY):_____

SECTION I

A. INTRODUCTION

The New Jersey Turnpike Authority (the "Authority") was created by an act of the New Jersey Legislature in 1948, known as the New Jersey Turnpike Authority Act (as amended and supplemented, "Act"). The Act authorizes the Authority to construct, maintain, repair, and operate the New Jersey Turnpike, to collect tolls, and to issue Turnpike Revenue Bonds or Notes, subject to the approval of the Governor, payable from tolls and other revenues of the Authority. On May 27, 2003, the Act was amended to empower the Turnpike to assume all powers, rights, obligations and duties of the New Jersey Highway Authority (the "Highway Authority"), which owned and operated the Garden State Parkway and PNC Bank Arts Center. On July 9, 2003, the Authority assumed all powers, rights, obligations and duties of the Highway Authority. The Authority currently operates both the Garden State Parkway ("GSP") and the New Jersey Turnpike ("Turnpike") (both roads are collectively referred to herein as the ("Roadways").

The Authority is governed by an eight member Board of Commissioners ("Board"). The Governor of New Jersey appoints each of its members and has the statutory authority to overturn an action of the Board by vetoing any Board action within 10 days of receiving the minutes of the meeting. The Board authorizes awards of all public contracts over $35,000, except in cases where it has delegated authority to the Executive Director.

This bid solicitation is being conducted pursuant to the Authority's enabling statute as found in N.J.S.A. 27.23-6.1 and Executive Order number 37 (Corzine 2006) and the regulations and policies of the Authority with regard to public bid procurement.

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B. BIDDER GUIDELINES/CHECKLIST

BIDS THAT FAIL TO CONFORM TO THE FOLLOWING REQUIREMENTS MAY BE REJECTED:

1. The Request of Bid ("RFB"), including specifications and related bid documents ("Bids") must be received at or before the due date and time stated on the cover page at the following place: New Jersey Turnpike Authority, Administration Building, 581 Main Street, Woodbridge, New Jersey 07095. Late Bids will be returned unopened. Telephone or facsimile Bids will not be accepted.
2. **The entity submitting a Bid ("Bidder") must provide one original and one copy of the Bid.** The Bid must include all price information. Bid prices shall include delivery of all items F.O.B. destination or as otherwise provided. Price quotes must be firm through issuance of contract.
3. All Bid prices must be typed or written in ink. Quote the specified unit of measure. If bidding an alternate, provide detailed specifications.
4. All corrections, white-outs, erasures, re-striking of type, or other forms of alteration or the appearance of alteration, to unit and/or total prices must be initialed in ink by the Bidder.
5. **The Bidder must attend the Mandatory Site Inspection at the following date(s) and time(s) if applicable**: **SEE PAGE # 6**
6. If checked this RFB requires the following mandatory document(s) or the Bid **will** be rejected:

   (a) Bid Bond or Cashier's Check for 10% of the amount Bid or a Letter of Surety ☒

   (b) Stockholder/Partnership Disclosure Statement ☒

7. See the Authority's Instruction to Bidders for a complete list of the Authority's standard contract Terms and Conditions, as well as required forms that must be included with the Bid (**SEE ATTACHED**).

   The following checked documents are required for this Bid. Failure to submit the required forms may result in the rejection of the Bid.

   (a) State of New Jersey Division of Revenue Business Registration Certificate ☒

   (b) Certification of Registration with the Secretary of State (only if non-NJ corporation) ☒

   (c) Acknowledgement of requirement for Disclosure of Political Contributions (ELEC) ☒

   (d) Public Works Contractor Registration Certificate(s) (if applicable) ☒

   (e) Affirmative Action Information Sheet with Certificate or Form AA302 ☒

   (f) Signed Mandatory Equal Employment Opportunity Language ☒

   (g) SBE/WBE/MBE Certificates and Form ☒

   (h) Vendor Disclosure Form (EO129-Location of Services) ☒

   (i) Notice of Set-Off for State Tax (P.L. 1999, c 159) ☒

   (j) Automobile Insurance Liability Waiver ☐

   (k) Insurance Certificate ☒

   (l) Disclosure of Investment Activities in Iran ☒

8. (m) Required Submittals as listed on page 5 ☒
9. Bidder must sign Bid ☒

REQUIRED SUBMITTALS

A. Contractor must be operating an HVAC contracting business for a minimum of five (5) consecutive years and hold a current HVACR license from the State of New Jersey. A **copy of the HVACR license shall be included in Contractor's bid.**

B. Contractor shall be currently engaged in servicing and maintaining 3 HVAC facilities comparable to those of the Authority. **Contractor shall provide the business names, identity of a contact person and phone numbers of the comparable businesses.**

C. Contractor's technicians must meet each of the following requirements:

(1) S.T.A.R. HVAC N.I.T.C. – certified. A copy of each technician's certification shall be included in Contractor's bid.
(2) Completion of an O.H.S.A. training course. A copy of each technician's course certificate shall be included in Contractor's bid.
(3) E.P.A. 608 certification. A copy of each technician's certification shall be included in Contractor's bid.
(4) At minimum, N.A.T.E. HVACR entry-level and early career certification. Proposed alternative national and state HVACR training certifications will be reviewed for acceptance, e.g. training programs acceptable to New Jersey's Local 9 Refrigeration and Air Conditioning Union. A copy of each technician's certification shall be included in Contractor's bid.

D. Failure to submit all required certifications may result in rejection of bid.

E. All service calls dispatched shall be logged through a computerized dispatch system which maintains a complete database of service calls, equipment, parts, history and billings as a minimum. **The Authority requests the Contractor submit with bid, the Software's name and version which will be utilized.**

SITE VISIT INFORMATION:

Mandatory Site Visit To All Locations must be attended by any interested bidder for award. If the bidder submits a bid and has not attended every site visit, their bid may be rejected. **All Bidders must contact John J. Parmigiani for confirmation of attendance at 732-750-5300 x 8632.**

DIRECTIONS WILL BE FURNISHED UPON CONFIRMATION OF ATTENDANCE.

MONDAY MARCH 21, 2016 9:00 AM

New Jersey Turnpike Interchange # 7

New Jersey Turnpike Interchange 7A

New Jersey Turnpike Service Area 7S – (Molly Pitcher)

Cranbury State Police Headquarters

NJ Turnpike Headquarters Building

Holmdel State Police

Elizabeth Maintenance District

New Jersey Turnpike Maintenance District Secaucus

CONTACT PHONE NUMBER FOR DAY OF SITE VISIT

609-947-0906 JOHN PARMIGIANI

SECTION II

A. INTENTION

1. Sealed Bids for RM # 121895 must be received at the New Jersey Turnpike Authority Administrative Offices, 581 Main Street, Woodbridge, New Jersey 07095-5042, by the due date and time stated on the cover page of this RFB at which time and place said Bid will be opened and read in public.
2. Bidders mailing Bids should allow for their normal mail delivery time to ensure timely receipt of the Public Bids. **Please be advised that using an overnight/next-day delivery service does not guarantee overnight/next-day deliveries to our location. The Authority will not be responsible for any Bid not being received by the required date and time**.
3. It is the intention of the Authority to issue a purchase order or notice of award for a price agreement for the procurement of: **MAINTENANCE OF VENTILATING & AIR CONDITIONING EQUIPMENT AND REPAIR.**
4. The term of the contract shall be for two years with the option to extend for two additional one-year terms at the Authority's discretion and the vendor's concurrence.
5. Please contact John J. Parmigiani with any questions regarding this procurement contract at 732-750-5300 x 8632 or jparmigiani@turnpike.state.nj.us.

B. BID SHEET INSTRUCTIONS

1. Bidders must follow all instructions in this RFB and in the Instructions to Bidders issued by the Authority, and any other documents issued by the Authority in connection with this RFB (collectively, "Bid Documents").
2. Bidders must examine the bid documents carefully before bidding and must ask the Director of Procurement and Materials Management Department ('PMM") in writing for any interpretation or correction of any apparent ambiguity, inconsistency or apparent error therein. If necessary, an interpretation or correction to the specifications shall be issued by the Director of PMM in response to inquiries and/or addendum shall be faxed to Bidders who have obtained the Bid Documents. Upon the issuing of an addendum, the addendum shall become part of the bid documents. **Requests for interpretation or correction shall be considered only if received at least 5 business days prior to the Bid opening date**. Written requests can be submitted by FAX at 732-750-5399.
3. The submission of the Bid is conclusive evidence that the Bidder is fully aware of the conditions, requirements, and details as stated in the Bid Documents. If the Bidder, prior to submitting its Bid, fails to notify the Director of PMM of the existence of an ambiguity or inconsistency in the Bid Documents, a Bid will conclusively be presumed to have been based upon the Authority's interpretation of such ambiguity or inconsistency.

4. All erasures, interpolations or other physical changes on the Bid form shall be signed or initialed by the Bidder. Bids containing any conditions, omissions, erasure's, alterations, or items not called for in this RFB or irregularities of any kind, may be rejected by the Authority, in its sole discretion.
5. The Bidder shall not attach conditions, limitations or provisos to its Bid.
6. **The Authority will accept Approved Equivalent items on this Bid.** If a Bidder is basing the proposal on items other than what is specified, and wishes the items proposed to be considered as an "Approved Equivalent", the Bidder shall enter a price on the Bid sheet then submit on the Exception Sheet in the exact format of the line item on the RFB contained herein, the item number, an item description including manufacturers name, model number, informational brochure(s), and packaging quantities of those items that the Bidder proposes to substitute.

C. BASIS OF AWARD

1. **Bidders may bid on one (1) or Both Regions. Bids not having a price for all line items within each region may result in rejection of the bid. Award will be determined by the lowest responsive and responsible bidder for the total line items per region.**
2. Bidders must quote only one price per line item. If a Bidder quotes multiple prices per line item, the Bid may be rejected.
3. The Authority will purchase amounts of any given item as needed, at the sole discretion of the Authority and shall not be bound by any quantities listed. The Authority reserves the right to make reasonable increases to line item quantities.
4. All items are to be Bid FOB Destination. All shipping, handling, and other costs should be considered in the Bid price.
5. The Authority is tax exempt from New Jersey Sales and Excise Tax.

.

D. MISCELLANEOUS

1. Delivery Date _____
   (Insert if applicable)
2. Payment Terms: The Authority's standard payment terms are Net 30 days. Prompt payment discounts may be offered and must be a minimum of 10 days.

   Discount: Maximum time period _____
   Percentage _____

   Note: Although prompt payment discounts will **not** be considered in determining low Bid, the Authority reserves the right to take advantage of any such discounts offered.
3. Contract Bond: The successful bidder will be required, upon award, to provide a contract bond in an amount of: **50% of the contract amount.**

E. SIGNATURE PAGE

1. **ADDENDA / INQUIRIES:** COMPLETE (if applicable) BEFORE SUBMITTING BID:
   Receipt of Addendum / Inquiries #_____dated_____is hereby acknowledged.
   Receipt of Addendum / Inquiries #_____dated_____is hereby acknowledged.

   ☐ **CHECK BOX IF NO ADDENDA/INQUIRY ISSUED**
   (All Addenda / Inquiries must be acknowledged as indicated above.)

2. **BID IRREVOCABLE:** This offer shall be irrevocable for ninety (90) working days, after the date on which the Authority publicly opens this Bid.

3. **OFFER/CERTIFICATION:** The undersigned offers and agrees to furnish to the New Jersey Turnpike Authority the services and/or materials in compliance with all terms, conditions, specifications and addenda of the RFB, Bid Documents, and resulting contract. The undersigned further certifies understanding and compliance with the requirements of the standard terms and conditions as stated in the Instructions to Bidders included with the Bid Documents. The undersigned certifies that he or she executes this Bid with full authority so to do; and that all statements contained in this Bid and in this certification are true and correct, and made with full knowledge that the Authority relies upon the truth of the statements contained herein and in any statements requested by the Authority showing evidence of qualifications in awarding the contract.

   I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.

4. **AUTHORIZED SIGNATURE:**_____

   Print Name and Title: _____

   Bidder: _____

   Address: _____

   City, State, Zip: _____

   E-mail address _____

   Telephone #: _____ Fax:_____

   Date: # _____

EXAMPLE PAGE
FOR
BID QUOTATION SHEET
REGION # 1

	COLUMN A			COLUMN B	COLUMN C
ITEM	**QUAN.**	**UNIT**	**DESCRIPTION**	**UNIT COST**	**AMOUNT**
1	12	MONTH	COST TO MAINTAIN ALL LISTED VENTILATION AND COOLING EQUIPMENT AT THE SITES LISTED IN APPENDIX B AND ASSOCIATED EQUIPMENT LISTED IN APPENDIX H & I AS PER SPECIFICATION	$300.00	$3,600.00
			MULTIPLY COLUMN A X B = C TOTAL AMOUNT		**$3,600.00**

BIDDER MUST QUOTE A UNIT COST FOR ADDITIONAL COOLING EQUIPMENT AS STATED BELOW. FAILURE TO QUOTE THIS SERVICE RATE MAY RESULT IN REJECTION OF THE BID. THIS UNIT COST RATE WILL NOT BE FACTORED IN THE BASIS OF AWARD.

	COLUMN A			COLUMN B	COLUMN C
ITEM	**QUAN.**	**UNIT**	**DESCRIPTION**	**UNIT COST**	**AMOUNT**
1.	2	TON(S)	COST TO MAINTAIN ADDITIONAL COOLING EQUIPMENT AT ANY AUTHORITY FACILITY PER UNIT NOT LISTED IN APPENDIX C, H AND I. PER SPECIFICATION	$1,500.00	$3,000.00
			MULTIPLY COLUMN A X B = C		$3,000.00

BID QUOTATION SHEET
REGION # 1
TURNPIKE SOUTH CENTRAL
MILEPOST 0.0 TO 83.4 (INTERCHANGE 9) AND WATER SAMPLING ON GARDEN STATE PARKWAY SOUTH/CENTRAL SITES

	COLUMN A			COLUMN B	COLUMN C
ITEM	**QUAN.**	**UNIT**	**DESCRIPTION**	**UNIT COST**	**AMOUNT**
1	12	MONTH	COST TO MAINTAIN ALL LISTED VENTILATION AND COOLING EQUIPMENT AT THE SITES LISTED IN APPENDIX B AND ASSOCIATED EQUIPMENT LISTED IN APPENDIX H & I AS PER SPECIFICATION	$	$
MULTIPLY COLUMN A X B = C TOTAL AMOUNT					**$**

BIDDER MUST QUOTE A UNIT COST FOR ADDITIONAL COOLING EQUIPMENT AS STATED BELOW. FAILURE TO QUOTE THIS SERVICE RATE MAY RESULT IN REJECTION OF THE BID. THIS UNIT COST RATE WILL NOT BE FACTORED IN THE BASIS OF AWARD.

	COLUMN A			COLUMN B	COLUMN C
ITEM	**QUAN.**	**UNIT**	**DESCRIPTION**	**UNIT COST**	**AMOUNT**
1.	2	TON(S)	COST TO MAINTAIN ADDITIONAL COOLING EQUIPMENT AT ANY AUTHORITY FACILITY PER UNIT NOT LISTED IN APPENDIX C, H AND I. PER SPECIFICATION **(SEE EXAMPLE ON PREVIOUS PAGE)**	$	$
MULTIPLY COLUMN A X B = C TOTAL AMOUNT					$

EXAMPLE PAGE
FOR
BID QUOTATION SHEET
REGION 2

	COLUMN A			COLUMN B	COLUMN C
ITEM	**QUAN.**	**UNIT**	**DESCRIPTION**	**UNIT COST**	**AMOUNT**
1.	12	Month	COST TO MAINTAIN ALL LISTED VENTILATION AND COOLING EQUIPMENT AT THE SITES LISTED IN APPENDIX C AND ASSOCIATED EQUIPMENT LISTED IN APPENDIX H & I AS PER SPECIFICATION	$300.00	$3,600.00
MULTIPLY COLUMN A X B = C TOTAL AMOUNT					**$3,600.00**

BIDDER MUST QUOTE A UNIT COST FOR ADDITIONAL COOLING EQUIPMENT AS STATED BELOW. FAILURE TO QUOTE THIS SERVICE RATE MAY RESULT IN REJECTION OF THE BID. THIS UNIT COST RATE WILL NOT BE FACTORED IN THE BASIS OF AWARD.

	COLUMN A			COLUMN B	COLUMN C
ITEM	**QUAN.**	**UNIT**	**DESCRIPTION**	**UNIT COST**	**AMOUNT**
1.	2	TON(S)	COST TO MAINTAIN ADDITIONAL COOLING EQUIPMENT AT ANY AUTHORITY FACILITY PER UNIT NOT LISTED IN APPENDIX C, H AND I. PER SPECIFICATION	$1,500.00	$3,000.00
2.	10	Hour	**HOURLY LABOR RATE** FOR MAINTENANCE AND REPAIR ON SERVICING ADDITIONAL EQUIPMENT FOR ONLY THE: NJ TURNPIKE AUTHORITY HQ BUILDING WOODBRIDGE, NJ	$90.00	$ 900.00
3.	------	-------	REPAIR PARTS FOR SERVICING ADDITIONAL EQUIPMENT FOR ONLY THE: NJ TURNPIKE AUTHORITY HQ BUILDING WOODBRIDGE NJ	+ 10%	COST OF PART + 10 %
FOR ITEMS 1 AND 2 ONLY --- MULTIPLY COLUMN A X B = C					$3,900.00

REPAIR PARTS REQUIRED FOR THE NJ TURNPIKE HQ BUILDING WOODBRIDGE, NJ 07095 WILL BE BILLED AT THE **CONTRACTOR'S COST PLUS 10%**. THE CONTRACTOR MUST SUBMIT A COPY OF THE ORIGINAL PURCHASE INVOICE(S) AS PROOF OF COST FOR PARTS.

BID QUOTATION SHEET
REGION 2
TURNPIKE NORTH
MILEPOST 88.1 TO 122.0 (INTERCHANGE 10) AND WATER SAMPLING ON GARDEN STATE PARKWAY SOUTH/CENTRAL SITES

	COLUMN A			COLUMN B	COLUMN C
ITEM	**QUAN.**	**UNIT**	**DESCRIPTION**	**UNIT COST**	**AMOUNT**
1.	12	Month	COST TO MAINTAIN ALL LISTED VENTILATION AND COOLING EQUIPMENT AT THE SITES LISTED IN APPENDIX C AND ASSOCIATED EQUIPMENT LISTED IN APPENDIX H & I AS PER SPECIFICATION	$	$
MULTIPLY COLUMN A X B = C TOTAL AMOUNT					**$**

BIDDER MUST QUOTE A UNIT COST FOR ADDITIONAL COOLING EQUIPMENT AS STATED BELOW. FAILURE TO QUOTE THIS SERVICE RATE MAY RESULT IN REJECTION OF THE BID. THIS UNIT COST RATE WILL NOT BE FACTORED IN THE BASIS OF AWARD.

	COLUMN A			COLUMN B	COLUMN C
ITEM	**QUAN.**	**UNIT**	**DESCRIPTION**	**UNIT COST**	**AMOUNT**
1.	2	TON(S)	COST TO MAINTAIN ADDITIONAL COOLING EQUIPMENT AT ANY AUTHORITY FACILITY PER UNIT NOT LISTED IN APPENDIX C, H AND I. PER SPECIFICATION **(SEE EXAMPLE ON PREVIOUS PAGE)**	$	$
2.	10	Hour	**HOURLY LABOR RATE** FOR MAINTENANCE AND REPAIR ON SERVICING ADDITIONAL EQUIPMENT FOR ONLY THE: NJ TURNPIKE AUTHORITY HQ BUILDING WOODBRIDGE, NJ	$	$
3.	------	-------	REPAIR PARTS FOR SERVICING ADDITIONAL EQUIPMENT FOR ONLY THE: NJ TURNPIKE AUTHORITY HQ BUILDING WOODBRIDGE NJ	+ 10%	COST OF PART + 10 %
FOR ITEMS 1 AND 2 ONLY --- MULTIPLY COLUMN A X B = C					$

REPAIR PARTS REQUIRED FOR THE NJ TURNPIKE HQ BUILDING WOODBRIDGE, NJ 07095 WILL BE BILLED AT THE **CONTRACTOR'S COST PLUS 10%**. THE CONTRACTOR MUST SUBMIT A COPY OF THE ORIGINAL PURCHASE INVOICE(S) AS PROOF OF COST FOR PARTS.

SPECIFICATIONS

1. PURPOSE AND INTENT

The purpose of this Request for Bid (RFB) is to obtain bids4 from responsible and responsive bidders to furnish all supervision, labor, materials, equipment, certifications and insurance to maintain all ventilating and air conditioning equipment and heat pumps as designed for reliable and efficient performance herein specified at each facility hereafter specified (see Appendix-B & Appendix-C).

Air conditioning and Ventilation equipment is to include but is not limited to systems that contain; Direct Expansion (DX) Refrigerant, Chilled Water, Hot Water, Condenser Water, Electrical Resistance Heating Elements, Fan Motors, etc.; Service to extend to all ancillary support devices within these systems on the Air Side (Fan, Belts, Filters, (Variable Frequency Drives) (VFDs), Motor Starters, etc.) and Water Side (Pumps, Strainers, Glycol Feed Tanks, VFDs, Starters, etc.). All Service Area Exhaust Fans are serviced by Host Marriott Services (HMS) Host and are not in this Contract Scope.

The Contractor shall be responsible for the maintenance and repair of ventilating and cooling equipment at all facilities within the region(s) bid as indicated in the specifications. Additionally, the Contractor shall establish baseline data for the Heating Ventilation and Air Conditioning (HVAC) systems by performing Testing, Adjusting, and Balancing (TAB) at each site within the first three months of their contract. TAB services will be provided in compliance with Appendix G, "Testing, Adjusting and Balancing".

Excluded items from this scope are piping and ductwork repair. Contractor to report on condition of piping and ductwork only.

2. CONTRACT TERM

The term of the Contract is for 2 years and shall commence upon receipt of an Authority Notice of Award. The Authority, at its sole discretion with the vendor's concurrence, may choose to extend this Contract for two additional one (1) year terms.

The Authority will notify the Contractor, in writing, thirty (30) days prior to the end of the term of its intent to extend. The Authority reserves the right to terminate said extension at any time by giving the Contractor thirty (30) days' notice, in writing, of its intent to terminate.

3. GENERAL REQUIREMENTS

The Contractor is required to comply with the following requirements:

A. The Contractor shall have personnel available to respond to service requests 24 hours/day, 7 days/week including weekends and holidays. The Contractor must supply a contact name and phone number to the Authority for any service requests.

B. The Contractors primary business shall be commercial and industrial HVAC installation, repair and maintenance. The Contractor shall be licensed in the State of New Jersey to perform the HVAC work listed within this contract. **Failure to be licensed at the time of bid submission may result in bid rejection**.

The Contractor shall have a successful history in the maintenance and navigation of NiagaraAX based Building Management Systems (BMS) including maintenance and control of BACnet field level devices. Contractor must demonstrate experience in BMS maintenance of not less than 5 years and in Direct Digital Control installation, start up and commissioning for buildings similar to New Jersey Turnpike Authority (NJTA) or Authority facilities covered under this contract. Controls interface can be limited to Navigation of the Human Machine Interface (HMI)'s for troubleshooting, assessment of equipment, and testing and balancing support.

C. The Contractor shall have access to a working stock of spare parts for equipment within this contract. The Contractor shall be responsible to replace (but not limited to) the listed equipment and within the timeframes listed below:

Belts: 1 Day
Filters: 1 Day
Compressors: 4 Days
Fans: 3 Days
Motors: 2 Days
Damper / Valve Actuators: 2 Days
Coils: 10 Days

D. The Contractor shall be fully capable and able to obtain parts for computerized cooling systems which are used at various facilities.

E. The Contractor shall remove or dispose of all debris, garbage, equipment and materials from the job site upon completion of the job.

F. The Contractor shall provide in full compliance with OSHA and PEOSHA Laws and Regulations all personal protective equipment (PPE) including, but not limited to, harnesses, hardhats and safety glasses, etc. as required and certify that all service personnel are trained and qualified in their use.

G. The Contractor shall have a minimum of two full time service technicians available within each service area (North & South/Central) during peak times of May 1st thru October 1st; four (4) technicians if the contractor is awarded both areas of service.

H. The Contractor shall provide a daily report on the status of open AC Complaint Forms. All AC Complaint Forms shall be responded within a 24 hour time frame. Response shall include schedule of resources to address the issue at hand. A follow up report on identified issue with estimated time to correct shall be submitted at the end of the day of service.

4. WORK TO BE PERFORMED

All work that is required under this Contract shall include but is not limited to the following:

A. Preventative Maintenance And Inspections

a. Preparation for Cooling Season

Preventative maintenance for the summer cooling season shall be completed by April 15th with final acceptance by the NJTA on May 1 of each contract year. The Contractor shall submit an execution schedule and plan to NJTA by March 1st outlining the sites visited with the duration list. Each individual system shall be serviced as listed in Appendix D. Test procedures are to be complete, checked off, and documented in a service report. The service report is to include the service technicians contact information, Pictures documenting the task at hand, and a copy of the maintenance outline annotated documenting the completed tasks. The service report shall be submitted electronically to the NJTA the following week after work is completed. This shall also include:

- Perform and coordinate start-up as required including specific written procedures published by the respective Original Equipment Manufacturer (OEM).
- Coordinate seasonal changeover with NJTA maintenance personnel on systems with shared heating and cooling components.

b. Shut Down At End Of Cooling Season / Heating Inspection

Preventative maintenance for the summer cooling season shall be completed by September 30th with final acceptance by the NJTA on October 15th of each contract year. Contractor shall submit an execution schedule and plan to NJTA by August 15th outlining the sites visited with the duration list. Each individual system shall be serviced as listed in Appendix D. Test procedures are to be complete, checked off, and documented in a service report. The service report is to include the service technicians contact information, Pictures documenting the task at hand, and a copy of the maintenance outline annotated documenting the completed tasks. The service report shall be submitted electronically to the NJTA the following week after work is completed.

This shall also include:

- Pump down compressors
- Close Freon valves
- Check for leaks and repair as necessary
- Perform and coordinate start-up as required including specific written procedures published by the respective Original Equipment Manufacturer (OEM).Coordinate seasonal changeover with NJTA maintenance personnel on systems with shared heating and cooling components.
- Freeze stat Functional Check
- Glycol Sampling
- Glycol Tank & Level Control Functionality Check
- Inspection & repair for pipe leaks on Refrigerant Lines
- Inspection and Reporting for Pipe Leaks on Hydronic Systems

c. During Cooling Season

During cooling season the Contractor shall perform preventative maintenance and inspect each unit to ensure proper operation. The preventative maintenance is outlined within Appendix D; including the frequency so such work. Procedures are to be complete, checked off, and documented in a service report. The service report is to include the Service Technician contact information, Pictures documenting the task at hand, and a copy of the maintenance outline annotated documenting the completed tasks. The service report shall be submitted electronically to the NJTA within the next invoice period after work is completed. The Authority reserves the right to have the Contractor increase the frequency of such inspections in certain areas which the Authority deems critical or problematic.

The inspections shall include the following:

- Check for proper refrigerant levels
- Check all electrical components
- Check evaporator and condenser coils and clean when necessary
- Clean entire interior of unit
- Lubricate all moving parts as required Check condenser
- Adjust or replace belts as necessary
- Check and clean condensate lines as necessary

NOTE: Cooling equipment in certain areas (i.e. EZ Pass huts, radio rooms, etc.) is required to be operational at all times of the year. These areas shall be treated as if the entire year is the cooling season. Also, all ventilating equipment (blower motors, fans, etc) shall be maintained by the Contractor regardless of its relation to the heating system.

B. Service Calls

The Contractor will be notified by the Authority for all air conditioning complaints. The Contractor is required to respond to the respective location of each complaint within two (2) hours of notification; for all non-critical sites. One (1) hour response time required at the critical sites (NJTA-HQ Building & State Police sites). **This response time is required 24 hours/day, 7 days/week including nights, weekends and holidays.**

The Contractor shall detect the problem systematically using currently acceptable inspection, analytical and troubleshooting methods. **It is understood that all costs including labor, materials, parts and premium shipping charges associated with these repairs are to be included on the bid quotation sheet. There will be no additional compensation**.

All site visits shall be documented with a complete service report that includes the Service Technician contact information, pictures documenting the task, description of the work performed, and itemized list of parts and amount of time needed for repair. The service report shall be submitted electronically to the NJTA with the request for payment.

5. RESPONSIBILITIES OF THE CONTRACTOR

The submission of a bid for this Contract constitutes the Contractors acceptance of the responsibility of all the equipment in its present condition.

A. Parts And Component Replacement

The Contractor shall be solely responsible for repairs or replacement worn parts and components. New parts shall be from the Original Equipment Manufacturer (OEM). Non-OEM parts may only be used with the permission of the Authority.

B. End of Useful Life

If in the opinion of the Contractor, the current equipment can no longer be repaired it will be the responsibility of the Contractor to bring it to the immediate attention of the Authority. The Contractor shall then have five (5) days to provide evidence of this to the Authority. The Director of Maintenance will have final decision whether the equipment shall be replaced by the Authority or the Contractor should continue to make repairs.

Equipment that has not exceeded the ASHRAE Equipment Life Expectancy Chart (Appendix E) median years will not be considered without a valid reason. Review of the premature failure concern will be considered at the Authorities discretion. All requests must be made within the first 3 months of the contract start date and are to accompany an Air and Water Balancing report. Requirements of the testing and balancing are listed within Appendix G. Evidence for consideration of End of Useful life shall include, but is not limited to the following:

- Pictures
- Performance evaluation
- Years of operation
- Description of Deficiencies

C. Limits of Responsibility

The Contractor's limits on the power side start with his/her responsibility for the replacement of fuses in the units' respective disconnect switch. The Contractor shall also be responsible for all equipment and parts for the entire air conditioning and ventilation system regardless of the relation to the heating system (i.e. blower motors, fan motors, etc.). The Contractor shall also be responsible for all temperature controls and control panels contained within the unit itself.

A division of scope line will be at the power disconnect of each cooling system. All equipment connected to such disconnect is the contractors responsibility. This includes all control devices, communication wiring, actuators, motors, filters, fans, valves, duct accessories, and piping accessories. See Appendix F (Single Line Diagram of Facilities) for examples of division of scope.

D. Water Treatment

This Contract includes the proper water treatment of all cooling towers. System parameters shall be prescribed by the equipment manufacturer or a water treatment specialist. It is expected that a PH factor of 7.0 will be maintained unless otherwise directed by the Authority. A quarterly report must be submitted and verified by an independent testing laboratory.

See Appendix D for Water Sampling requirements as part of the preventative maintenance. Based on results of testing results the Contractor is responsible to restore the water loop to the following conditions:

For Condenser Water Loops:

The use of chemical-treatment products containing hexavalent chromium (Cr) is prohibited. Treat the water to be used in the condenser water systems to maintain the conditions recommended by this specification as well as the recommendations from the manufacturers of the condenser and evaporator coils. Chemicals shall meet all required federal, state, and local environmental regulations for the treatment of condenser-side heat exchangers, cooling towers and direct discharge to the sanitary sewer.

The condenser water limits shall be as follows, unless dictated differently by the cooling tower or chiller manufacturer's recommendations:

Treatment Type	Phosphonate / Polymer
Puckorius Index	4 Minimum
Langelier Index	4 maximum
Total Dissolved Solids	5000 ppm maximum
Calcium Hardness	1200 ppm maximum
Silica	150 ppm maximum
pH	7.5 – 8.5

For treated condenser/cooling tower water, blowdown must be minimized until the first of one of the top 5 limits is reached. Specific requirements for treatment chemicals and levels are listed below in paragraphs dealing with small and large systems.

Chilled Water, Heating Hot Water, and Dual Temperature Systems shall be treated with borax/nitrite and biocide. Borax/Nitrite treatment shall be maintained at the limits of 600 to 1000 ppm nitrite, 40 - 50 ppm copper corrosion inhibitor (TT or MBT), and pH of 8 – 9.

All water loops shall maintain a 30 - 40 percent concentration by volume of industrial grade propylene glycol, and corrosion inhibitors. Test the glycol in accordance with ASTM D1384 with less than 0.013 mm 0.5 mils penetration per year for all system metals. The glycol shall contain corrosion inhibitors. Silicate based inhibitors are not acceptable. The solution shall be compatible with pump seals, other elements of the system, and water treatment chemicals used within the system.

E. Insulation

It shall be the responsibility of the Contractor to maintain the closed cell tubing insulation on all refrigerant piping that is currently installed, including reapplication of UV protective coatings and replacement of cracked or torn insulation.

F. Indoor Air Quality Procedure

As part of the Authority's Indoor Air Quality Procedure the Contractor is required to complete the Ventilation Checklist at any time the contractor performs any service **(see Appendix-A)** for each unit serviced or checked during the year. The Contractor is required to submit the completed forms to the Authority on a weekly basis.

G. Communication

The Contractor shall insure all personnel servicing this Contract have a cell phone for onsite contact. Such number shall be provided to the Authority prior to mobilizing to any site.

6. REPORTING & SCHEDULING

The Contractor shall be responsible for, at a minimum, accepting the documented monthly service requirements listed within Appendix D. The contractor is to provide a schedule to inform the Authority of when each facility will be visited. For monthly invoicing the results of such services (including pictures and completed Preventative Maintenance Checklists) are to be provided to the Authority.

A. Preparation for Cooling System

All work for Preparation of the Cooling System are to be completed by April 15th with final acceptance by the Authority May 1st. Prior to work, scheduling for such services is to be submitted by March 1st for acceptance of the Authority. The schedule shall provide dates and specific areas where the PM will be performed. Any service that is not completed will require the Contractor to make staff available 24 hours / 7 days a week from April 22nd until such services are complete.

B. During Cooling Season

The Contractor shall provide the Authority with a proposed schedule for the in-season preventative maintenance (PM) by May 1st of that year. This schedule is to include the documented PM in Appendix D. The schedule shall provide dates and specific areas where the PM will be performed. The Authority reserves the right to increase PM visits in critical and troublesome areas as it sees fit.

C. End of Cooling Season.

All work for the End of the Cooling System are to be completed by November 15th with final acceptance by the Authority November 22nd. Prior to work, scheduling for such services is to be submitted by October 1st for acceptance of the Authority. The schedule shall provide dates and specific areas where the PM will be performed. Any service that is not completed will require the Contractor to make staff available 24 hours / 7 days a week from November 22nd until such services are complete.

D. Work Tickets

The Contractor shall provide the Authority with copies of the completed Work Tickets on a weekly basis. The Work Ticket shall provide all pertinent information including date, location, a complaint number provided by the Authority, technician, materials used, type of work performed, before and after photographs, additional materials required for completion, labor hours and any comments or remarks that are necessary. Electronic submittal is acceptable.

E. Monthly Reports

The Contractor, along with his monthly invoice, shall submit a report to the Authority via email describing in detail, all work completed during that payment period. Such a report shall include the Monthly Preventative Maintenance Checklist for all serviced equipment. Include photographs of all completed work.

F. Maintenance Management Report

The Contractor shall provide the Authority with a computerized Maintenance Management Report twice yearly; March 31st and September 30th. The report shall contain a complete inventory of the equipment and its condition. **A CD of the past 6 months of services performed to date shall be mailed to the Authority by such date. This is to include all service records and other documented work. Filenames nomenclature for such services shall be used for ease of locating.**

The report shall show equipment designation (i.e. SA 1S RTU -3), date manufactured, model and serial numbers, CFM, static pressure, RPM, voltage and any other nameplate data available.

Each piece of equipment shall have a repair history showing all work done, components replaced and total man-hours worked. All entries shall be chronological by the date the work was performed.

A written synopsis shall be prepared showing what equipment and/or location is requiring the most repairs. This sheet shall be designed to benefit both the Authority and the Contractor. The report shall be professionally written, organized and formatted into an easily readable printout. All new work tickets and Authority complaint numbers shall be added to the report.

7. QUALITY OF SERVICES

The Contractor agrees that the services must meet the Authority's expectations. If the Authority is dissatisfied with the services provided by the Contractor, the contractor agrees to remedy the area(s) of dissatisfaction within thirty (30) days at the Contractor's sole cost.

8. PROVISIONS FOR PAYMENT

Invoices shall be submitted for payment to the Authority by the 10 th of each month during the term of the contract for the preceding month's work together with vouchers, required affidavits and monthly reports by the Contractor. Payment will be as bid by the Contractor on the **Bid Sheet**. Monthly Reports are to include all service reports completed within that month.

ALL PAPERWORK AND PAYMENT SHALL BE MAILED TO:

The New Jersey Turnpike Authority
Finance Department
PO Box # 5042
Woodbridge NJ 07095

9. ADDITIONAL EQUIPMENT

Any new equipment, installed by the Authority, during this Contract can be added to this Agreement at the request of the Authority. When requested, the Contractor shall maintain the newly installed equipment in the same manner as the pre-existing equipment. Due to the additional maintenance expenditure, the Contractor will be compensated, per the prices submitted on the **Bid Quotation Sheets**.

10. TRAFFIC, TOLLS AND SAFETY

Turnpike passes will not be issued to the Contractor. All mileage, costs and tolls are the responsibility of the Contractor and are not reimbursable. Contractor vehicles will not be permitted to use Z-turns, median U-turns, grade separated U-turns or make U-turns across the median or in any Toll Plaza area. Any vehicle making illegal turns will be subject to a summons by the State Police. Access to the work site in this Contract may be via Turnpike interchanges by means of revenue toll tickets or via local streets. If access is via the Turnpike, egress must also be via the Turnpike. If access is via local streets, egress must also be via local streets. Exiting the Turnpike via an access gate, as at Service Areas or Maintenance Facilities, constitutes an evasion of tolls and is prohibited by Authority regulations, NJAC 19:-1.19.

11. PERSONNEL AND VEHICLES

All personnel servicing this Contract shall be neat in appearance and possess Contractor provided identification cards, which shall be displayed at all times.

Each Contractor vehicle shall be marked to prominently identity the Contractor's company name such that it will be recognizable to the State Police who patrol the Authority's facilities.

Appendix-A

TP-BEM-3

New Jersey Turpike Authority
Ventilation Checklist

Facility Name: _____

Unit # (AHU#, RTU# etc.): _____

Area Served: _____

Date: _____

Reason for Callout: PM Emergency *(circle one)*

Work Performed: _____

Employer (Company) Name: _____

Inspector Name (Print): _____ Inspector Signature: _____

Supply Temp. & Other Info. When Available

Bldg Number: _____

Outside Temp: _____

Inside Temp: _____

Area Setpoint Temp: _____

Supply Duct Temp: _____

Return Duct Temp: _____

Time of Day: _____

	Item Inspected	OK	Needs Attn.	Comment / Unit Information
Mandatory Info. -All Work	**TEMPERATURE:**			
	1. Area Temperature between 68 to 79° F or system responding after maintenance performed	☐	☐	
Mandatory Info. For all AHU, RTU Work Only	**FRESH AIR INTAKE:**			
	2. Area near intake free of contaminant sources (leaves, vehicle exhaust. etc.)	☐	☐	
	3. Bird screen in place and unobstructed	☐	☐	
	4. Outside / other air damper setting appropriate	☐	☐	
	FANS:			
	5. Motor operating	☐	☐	
	6. Belts in good condition and adjusted	☐	☐	
	COILS:			
	7. Coil free of significant corrosion or leaks	☐	☐	
	8. Clean and free of accumulated dust or debris	☐	☐	
	FILTER:			
	9. Filter in place	☐	☐	
	10. Free of accumulated contaminants	☐	☐	
	CONDENSATE DRAIN PAN:			
	11. Free of significant corrosion	☐	☐	
	12. Draining properly	☐	☐	
	13. Free of visible biofilm	☐	☐	
	14. Biocide used (note requires MSDS sheet)	☐	☐	
	VENTS/DUCTING:			
	16. Visually clean and free of accumulated dust	☐	☐	
	17. Insulation lining intact	☐	☐	
	18. Free of obstructions	☐	☐	
Supply Info. When Serviced	**ASSOCIATED EQUIPMENT:**			
	19. Condensor(s)	☐	☐	
	20. Compressor(s)	☐	☐	
	21. Evaporator(s)	☐	☐	
	22. Control(s)	☐	☐	
	OTHER EQUIPMENT (List All):			
	23.	☐	☐	
	24.	☐	☐	

Appendix-B

Appendix-B: Region 1 South/Central

Location

Interchange 1 - MP 1.9 NO. & SO. - DEEP WATER
Interchange 2 – MP 12.9 – SWEDESBORO
Interchange 3 – MP 26.1 - RUNNEMEDE
Interchange 4 – MP 34.5 – MT. LAUREL
Interchange 5 – MP 44.0 – BURLINGTON
Interchange 6 – MP 51 PHME – FLORENCE
Interchange 6A – MP 51 PHME – BORDENTOWN
Interchange 7 – MP 51 – FLORENCE
Interchange 7A – MP 60 - ALLENTOWN
Interchange 8 – MP 67.6 – HIGHTSTOWN
Interchange 8A – MP 77.6 – JAMESBURG
Interchange 9 – MP 83.3 – NEW BRUNSWICK

Service Areas

8N – Joyce Kilmer – MP 78.7 NORTH – MILLTOWN
7S – Molly Pitcher – MP 71.6 SOUTH – CRANBURY
6S – Richard Stockton – MP 58.7 SOUTH – YARDVILLE
6N – Woodrow Wilson – MP 58.7 NORTH – YARDVILLE
4N – J.F. Cooper – MP 39.4 NORTH – MOORESTOWN
3S – Walt Whitman – MP 30.2 SOUTH – CHERRY HILL
1S – Clara Barton – MP 5.4 SOUTH
1N – John Fenwick – DEEPWATER

Maintenance Districts & Miscellaneous Buildings

EZ Pass Building
District 1: Swedesboro – MP 13.2
District 2: Moorestown – MP 37.1 NB
District 3: Crosswicks – MP 56.5
District 4: Highstown / Central Shops – MP 67.6
District 5 – Milltown – MP 80.7
Bassett Building
Radio Comm.
Cranbury State Police – MP 71.7
Moorestown State Police – MP 36.9

Bi-Annual Water Sampling– (Chilled Water, Heating Hot Water, & Condenser Water) – Where applicable at above Turnpike locations and Garden State Parkway locations below.
District 1 – Swainton – MP 13.8 SB
District 2 – White Horse – MP 41.9 SB
District 3 – Ocean – MP 67.7 NB
District 4 – Herbertsville – MP 94.3
District 5 – Telegraph Hill – MP 116 SB
District 6 – Clark – MP 137.8 SB
****Holmdel State Police – MP 116**
Herbertsville CVI – MP 94.3
Galloway State Police
Any Garden State Parkway Boilers in Appendix I which are not listed above and are South of MP 140.0
**** Contractor to provide maintenance to water treatment system at this site dependent upon water sampling results.**

Appendix-C

Appendix-C: Region 2 North

Interchanges

Interchange 10 – MP 85.1 – EDISON
Interchange 11 – MP 90.2 – WOODBRIDGE
Interchange 12 – MP 95.9 – CARTERET
Interchange 13 – MP 99.9 - ELIZABETH
Interchange 13A – MP 101.6 - ELIZABETH
Interchange 14 – MP 104.7 - NEWARK
Interchange 14A – MP 3.5 HCBE – BAYONNE
Interchange 14B – MP 5.5 HCBE – JERSEY CITY
Interchange 14C – MP 5.9 HCBE – JERSEY CITY
Interchange 15E – MP 106.9 - NEWARK
Interchange 15W – MP 108.8 – KEARNY
Interchange 15X – MP 111.1 - SECAUCUS
Interchange 16E/18E – MP 112.3 – SECAUCUS
Interchange 17E – MP 112.7 - SECAUCUS
Interchange 18W – MP 113.8 – CARLSTADT

Service Areas

13S – Vince Lombardi – MP 115.6 SO. & NO. – RIDGEFIELD PARK
12S – A. Hamilton – MP 111.6 SOUTH – SECAUCUS
10S – T. Edison – MP 92.9 SOUTH – WOODBRIDGE

Maintenance Buildings and Miscellaneous Buildings

District 6 – Elizabeth – MP 100.4
District 7 – Newark / Northern Division – MP 105.0 (This includes Admin & State Police Building plus Trades Building)
District 8 – Secaucus – MP 111.5
District 9 – Jersey City – MP N-5.5
District 10 – East Rutherford – MP 112

Newark State Police – MP 104.8
NJTA-HQ Building – BAC Cooling Tower & Water Testing Only
Traffic Management Center – Water Sampling Only

Bi-Annual Water Sampling– (Chilled Water, Heating Hot Water, & Condenser Water) –
Where applicable at above Turnpike locations and Garden State Parkway locations below.
District 7U – Snow Sub Yard – Union – MP 142.7 NB
District 7 – Clifton – MP 156 NB
District 8 – Paramus – MP 164 SB
Bloomfield State Police
Any Garden State Parkway Boilers in Appendix I which are not listed above and are North of MP 140.0

Appendix-D

APPENDIX D:
PREVENTATIVE MAINTENANCE REQUIREMENT

All service reports shall be filed electronically (as a PDF) with the following designation:
Year_Month_Location_Service Type_Equipment Tag

Example:
For Interchange 3 preventative maintenance of AHU-1 in January 2016 shall be filed as such:
2016_01_Int. 3_PM_AHU-1.pdf

Abbreviations:
ACCU – Air Cooled Condensing Unit
AHU – Air Handling Unit
CH – Chiller
GSP – Garden State Parkway
Int – Interchange
MUA – Make-up Air Unit
NJT – New Jersey Turnpike
PM - Preventative Maintenance
RTU – Packaged Rooftop Unit
SA – Service Area
TMD – Turnpike Maintenance District
WO – Work Order
SS – Split System

New Jersey Turnpike Authority

Preventative Maintenance Requirements

1 SELECT SERVICE MAINTENANCE PROGRAM

Routine preventative maintenance inspections are performed throughout the year. The Schedules of Maintenance Form provides a summary of the schedules and types of inspections to be performed. These requirements are based upon the typical type of equipment present at each site. The Contractor shall review the equipment manuals available on-site during the Testing, Adjusting, and Balancing (T.A.B) effort within the first three months of a contract period and any additional recommended maintenance as listed within each manual.

2 WRITTEN REPORTS

Written reports will be provided to the Authority representative following each regular inspection or emergency call. Reports to include, service technicians contact information, images of work performed, itemized listed of parts and materials utilized amount of time for repair, and description of corrective action.

Model #	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
RTU			SSUC, CC, FS		AI	OI, FS			FS		SDCS	FS
Air Cooled Chiller		WS	AI		SSU, CC		OI		OI			
AHU & Fan Coil Units			CC, FS		AI	OI, FS			OI, FS		SDCS	FS
Make Up Air Unit & Heating and Ventilation Units			CC, FS			OI, FS			OI, FS			AI, FS
VAV			OI			OI			OI			OI
Ductless Split System			SSUC, CC, FS			OI, FS			FS			OI, FS
Exhaust Fans – General			FS			FS			FS			AI, FS
Boilers – Cast Iron Sectional								WS				
Boilers – Condensing Boilers								WS				
Water Cooled Chillers		WS	AI		SSU, CC		OI		OI			
Cooling Towers		WS	AI		SSU, CC		OI		OI		SDCS	
Pumps				AI						AI		
Glycol Make-up Units				AI						AI		

MONTHLY PREVENTATIVE MAINTENANCE SCHEDULE

Inspection Code Key:

AI= Annual Inspection
OI = Operating Inspection
SSU= Seasonal Start-up
SSUC= Seasonal Start-up Cooling Maintenance Inspection
SDCS= Seasonal Shutdown of Cooling Season / Heating Inspection
CC= Condenser Cleaning
FS= Filter Service
WS = Water Sampling – Tested by Third Party Agency

Note: As a minimum, quarterly Filter Changes are mandatory for all equipment serviced. These shall be performed in the months of March, June, September, and December.

SCOPE OF MAINTENANCE

Roof Top Unit

ANNUAL INSPECTION (AI) – Peformed in May
COMPREHENSIVE ANNUAL MAINTENANCE INSPECTION – Cooling Cycle

1. Report in with the Authority Representative.
2. Record and report abnormal conditions, measurements taken, etc.
3. Review logs with the Authority Representative for operational problems and trends.

1. General Assembly
- Leak-test the unit and report leak check results.
- Repair minor leaks as required (e.g. valve packing, flare nuts).
- Calculate the refrigerant loss rate per EPA guidelines and report to the customer.
- Check sheaves and pulleys for wear and alignment, if applicable.
- Check belts for tension, wear, cracks, and/or glazing, if applicable.
- Verify proper damper operation.
- Check mechanical linkages for wear, tightness, and clearances.
- Verify clean condenser and evaporator.
- Verify clean evaporator fan.
- Verify clean air filters.

2. Controls and Safeties
- Test the operation of the high condenser pressure safety device. Calibrate, if necessary, and record setting.
- Test the operation of the low evaporator pressure safety device. Calibrate, if necessary, and record setting.
- Test the operation of the oil pressure safety device, if applicable. Calibrate, if necessary, and record setting.

3. Lubrication
- Lubricate fan bearings, if applicable.
- Lubricate motor bearings, if applicable.
- Check oil level in the compressor(s), if applicable.

4. Motor and Starter
- Clean the starter and cabinet.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Check the contactors for free and smooth operation.
- Meg the compressor motor(s) and record readings.
- Verify the tightness of the compressor motor terminal connections.
- Verify the operation of the compressor oil heater(s)

SEASONAL START-UP – Performed in March
MID-SEASON COOLING INSPECTION

1. Start the unit.
2. Verify the starter operation.
3. Verify smooth operation of the compressors and fans.
4. Log operating conditions of the unit after the system has stabilized.
5. Review operating procedures with operating personnel.
6. Provide a written report of completed work amount of time for repair, operating log, and indicate any uncorrected deficiencies detected.

SHUTDOWN OF COOLING SYSTEM – Performed in November

1. Verify smooth operation of the fans.
2. Check the belts for tension, wear, cracks, and glazing.
3. Verify clean air filters.
4. Verify proper operation of the heating section.
5. Verify the operation of the temperature controls.

AIR COOLED CONDENSER CLEANING – Performed in March

Clean air-cooled condenser, using pressurized water. Coils, casings, control panel enclosure, fan sections and fan screens shall be completely free of three dimensional solid or greasy matter. Comb coils to restore air flow channels in sections that were impacted and dented.

FILTER REPLACEMENT – Evaluated at Each service & Mandatory Quarterly (March, June, Sept, Dec)

1. Replace clogged or dirty filters as necessary.

Air Cooled Chiller

ANNUAL INSPECTION – Performed in March
COMPREHENSIVE ANNUAL INSPECTION SERVICE

1. Report in with the Authority Representative.
2. Record and report abnormal conditions, measurements taken, etc.
3. Review with the Authority Representative for operational problems and trends.

1. General Assembly
- Inspect for leaks and report results.
- Calculate refrigerant loss rate per EPA guidelines and report to the customer.
- Repair minor leaks as required (e.g. valve packing, flare nuts).
- Visually inspect condenser coils for cleanliness.
- Grease the condenser fan bearings, if applicable.

2. Controls and Safeties
- Inspect the control panel for cleanliness.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Verify the working condition of all indicator/alarm lights, if applicable.
- Test the operation of the low water temperature safety device. Calibrate and record setting.
- Test the operation of the low evaporator pressure safety device(s). Calibrate and record setting.
- Check programmed parameters of SCM/SMM control, if applicable.

3. Lubrication System
- Check oil level in the compressor(s).
- Test oil for acid content and discoloration. Make recommendations to the Authority based on the results of the test.
- Verify the operation of the oil heater. Measure amps and compare reading with the watt rating of the heater, if applicable.
- Grease the condenser fan bearings, if applicable.

4. Motor and Starter
- Clean the starter and cabinet.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Check the contactors for free and smooth operation.
- Check the tightness of the motor terminal connections.
- Meg the motor(s) and record readings.
- Verify the operation of the electrical interlocks.
- Measure voltage and record. Voltage should be nominal voltage ±10%.

STARTUP / CHECKOUT PROCEDURE – Performed in May

1. Verify the operation of the oil heater(s), if applicable.
2. Verify full evaporator water system.
3. Verify the water flow rate through the evaporator.
4. Start the chiller.

5. Verify the starter operation.
6. Verify smooth operation of the compressors and fans.
7. Verify the operation of all timing devices.
8. Check the setpoint and sensitivity of the chilled water temperature control device.
9. Verify the settings on the UCM, if applicable.
10. Check the superheat and subcooling of the refrigerant circuit(s).
11. Verify full refrigerant circuit(s). Check sight glasses, if applicable.
12. Test the operation of the high condenser pressure safety device. Calibrate and record setting, if applicable.
13. Log the operating conditions after the system has stabilized.
14. Record the accumulated run hours of the compressor(s), if applicable.
15. Review operating procedures with operating personnel.
16. Provide a written report of the completed work, amount of time for repair, operating log, and indicate any uncorrected deficiencies detected.

SEASONAL START-UP – Performed in July and September
MID-SEASON RUNNING INSPECTION

1. Check the general condition of the unit.
2. Check the operation of the control circuit.
3. Check the operation of the motor(s) and starter(s).
4. Log the operating conditions after the system has stabilized.
5. Analyze the recorded data. Compare the data to the original design conditions.
6. Review operating procedures with operating personnel.
7. Provide a written report of completed work, amount of time for repair, operating log, and indicate any uncorrected deficiencies detected.

AIR COOLED CONDENSER CLEANING – Performed in May

Clean air-cooled condenser, using pressurized water. Coils, casings, control panel enclosure, fan sections and fan screens shall be completely free of three dimensional solid or greasy matter. Comb coils to restore air flow channels in sections that were impacted and dented.

WATER SAMPLING – Performed in February

A third party laboratory shall be contracted to sample the Chilled Water and reported in accordance with ASTM D596 as follows:

Date of Sample	
Temperature	°F
Silica (SiO 2)	ppm
Insoluble	ppm
Iron, Total (Fe)	ppm
Aluminum (Al)	ppm
Calcium (Ca)	ppm
Magnesium (Mg)	ppm
Carbonate (HCO 3)	ppm
Sulfate (SO 4)	ppm
Chloride (Cl)	ppm
Nitrate (NO 3)	ppm
Turbidity	Ntu
pH	
Residual Chlorine	ppm
Total Alkalinity	ppm
Non-Carbonate Hardness	ppm
Total Hardness	ppm
Dissolved Solids	ppm
Conductivity	Micro-ohm / cm
Ethylene Glycol Percentage	ppm
Propylene Glycol Percentage	ppm

AHU & Make Up Air Unit

ANNUAL INSPECTION – Performed in May
COMPREHENSIVE ANNUAL INSPECTION

1. Report in with the Authority Representative.
2. Record and report abnormal conditions, measurements taken, etc.
3. Review logs with the Authority Representative for operational problems and trends.

1. General Assembly
- Inspect the unit for cleanliness.
- Inspect the fan wheel and shaft for wear and clearance.
- Check the sheaves and pulleys for wear and alignment.
- Check the belts for tension, wear, cracks, and glazing.
- Verify tight bolts, set screws, and locking collars.
- Check dampers for wear, security and linkage adjustment.
- Verify clean condensate pan, drain rim invert & trap.
- Verify proper operation of the condensate drain.
- Verify clean air filters.
- Verify clean coils.
- Verify proper operation of the spray pump, if applicable.
- Verify smooth fan operation.
- Log operating conditions after system has stabilized.
- Provide a written report of completed work, amount of time for repair, operating log, and indicate any uncorrected deficiencies detected.

2. Lubrication
- Lubricate the fan shaft bearings, if applicable.
- Lubricate the motor bearings, if applicable.

3. Controls and Safeties
- Test the operation of the low temperature safety device, if applicable.
- Test the operation of the high static pressure safety device, if applicable.
- Test the operation of the low static pressure safety device, if applicable.
- Check the thermal cutout on electric heaters, if applicable.
- Check the step controller, if applicable.
- Check and record supply air and control air pressure, if applicable.
- Verify the operation of the control system and dampers while the fan is operating.

4. Motor and Starter
- Clean the starter and cabinet.
- Inspect the wiring and connections for tightness and signs of overheating and discoloration. This includes wiring to the electric heat, if applicable.
- Check the condition of the contacts for wear and pitting.
- Check the contactors for free and smooth operation.
- Meg the motor and record readings.

SEASONAL START-UP INSPECTION – Peformed in November
HEATING INSPECTION

1. **Gas Heat Option**
   - Visually inspect the heat exchanger.
   - Inspect the combustion air blower fan, and clean, if required.
   - Lubricate the combustion air blower fan motor, if applicable.
   - Verify the operation of the combustion air flow-proving device.
   - Test the operation of the high gas pressure safety device, if applicable. Calibrate, if necessary.
   - Test the operation of the low gas pressure safety device, if applicable. Calibrate, if necessary.
   - Verify the operation of the flame detection device.
   - Test the operation of the high temperature limit switch.
   - Verify the integrity of the flue system.
   - Verify the operation of the operating controls.
   - Verify the burner sequence of operation.
   - Verify proper gas pressure to the unit and/or at the manifold, if applicable.
   - Perform combustion test. Make adjustments as necessary.

OPERATING INSPECTION – Performed in June & September
SCHEDULED RUNNING INSPECTION

1. Check the general condition of the fan.
2. Verify smooth fan operation.
3. Check and record supply and control air pressure, if applicable.
4. Verify the operation of the control system.
5. Log the operating conditions after the system has stabilized.
6. Review operating procedures with operating personnel.
7. Provide a written report of completed work, operating log, amount of time for repair, and indicate uncorrected deficiencies detected.

AIR COOLED CONDENSER CLEANING – Performed in March

Clean air-cooled condenser, using pressurized water. Coils, casings, control panel enclosure, fan sections and fan screens shall be completely free of three dimensional solid or greasy matter. Comb coils to restore air flow channels in sections that were impacted and dented.

FILTER REPLACEMENT – Evaluated at Each service & Mandatory Quarterly (March, June, Sept, Dec)

1. Replace clogged or dirty filters as necessary.

OPERATING INSPECTION – Performed in March, June, September, & December
VARI INSPECTION

1. Report in with the Authority Representative.
2. Record and report abnormal conditions, measurements taken, etc.
3. Review customer logs with the Authority Reresentative for operational problems and trends.
4. Verify proper air valve operation.
5. Check and adjust velocity control, if applicable.
6. Verify VAV box sequence of operation.
7. Check and adjust all related controls.

ANNUAL INSPECTION – Performed in March
COMPREHENSIVE ANNUAL MAINTENANCE INSPECTION – Cooling Cycle

1. Report in with the Authority Representative.
2. Record and report abnormal conditions, measurements taken, etc.
3. Review logs with the Authority Representative for operational problems and trends.

2. General Assembly
- Leak-test the unit and report leak check results.
- Repair minor leaks as required (e.g. valve packing, flare nuts).
- Calculate the refrigerant loss rate per EPA guidelines and report to the customer.
- Check sheaves and pulleys for wear and alignment, if applicable.
- Check belts for tension, wear, cracks, and/or glazing, if applicable.
- Verify proper damper operation.
- Check mechanical linkages for wear, tightness, and clearances.
- Verify clean condenser and evaporator coils.
- Verify clean evaporator fan, condensate pan and drain rim invert & trap.
- Verify clean air filters.

3. Controls and Safeties
- Test the operation of the high condenser pressure safety device. Calibrate, if necessary, and record setting.
- Test the operation of the low evaporator pressure safety device. Calibrate, if necessary, and record setting.
- Test the operation of the oil pressure safety device, if applicable. Calibrate, if necessary, and record setting.

4. Lubrication
- Lubricate fan bearings, if applicable.
- Lubricate motor bearings, if applicable.
- Check oil level in the compressor(s), if applicable.

5. Motor and Starter
- Clean the starter and cabinet.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Check the contactors for free and smooth operation.
- Meg the compressor motor(s) and record readings.
- Verify the tightness of the compressor motor terminal connections.
- Verify the operation of the compressor oil heater(s)

SEASONAL START-UP – Performed in June & December
MID-SEASON COOLING INSPECTION

1. Start the unit.
2. Verify the starter operation.
3. Verify smooth operation of the compressors and fans.
4. Log operating conditions of the unit after the system has stabilized.
5. Review operating procedures with operating personnel.
6. Provide a written report of completed work, operating log, amount of time to repair, and indicate any uncorrected deficiencies detected.

AIR COOLED CONDENSER CLEANING – Performed in March

Clean air-cooled condenser, using pressurized water. Coils, casings, control panel enclosure, fan sections and fan screens shall be completely free of three dimensional solid or greasy matter. Comb coils to restore air flow channels in sections that were impacted and dented.

FILTER REPLACEMENT – Evaluated at Each service & Mandatory Quarterly (March, June, Sept, Dec)

1. Replace clogged or dirty filters as necessary.

Exhaust Fans – General (All Service Area Fans to be maintained by HMS Host)

ANNUAL INSPECTION – Performed in December

COMPREHENSIVE ANNUAL MAINTENANCE INSPECTION

1. Report in with the Authority Representative.
2. Record and report abnormal conditions, measurements taken, etc.
3. Review logs with the Authority Represenataive for operational problems and trends.

1. General Assembly
- Check sheaves and pulleys for wear and alignment, if applicable.
- Check belts for tension, wear, cracks, and/or glazing, if applicable.
- Verify proper damper operation.
- Check mechanical linkages for wear, tightness, and clearances.
- Verify clean air filters.

2. Controls and Safeties
- Test the start/stop command.

3. Lubrication
- Lubricate fan bearings, if applicable.
- Lubricate motor bearings, if applicable.

4. Motor and Starter
- Clean the starter and cabinet.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Check the contactors for free and smooth operation.

FILTER REPLACEMENT – Evaluated at Each service & Mandatory Quarterly (March, June, Sept, Dec)

1. Replace clogged or dirty filters as necessary.

WATER SAMPLING – Performed in August

A third party laboratory shall be contracted to sample the Heating Hot Water and reported in accordance with ASTM D596 as follows:

Date of Sample	
Temperature	°F
Silica (SiO 2)	ppm
Insoluble	ppm
Iron, Total (Fe)	ppm
Aluminum (Al)	ppm
Calcium (Ca)	ppm
Magnesium (Mg)	ppm
Carbonate (HCO 3)	ppm
Sulfate (SO 4)	ppm
Chloride (Cl)	ppm
Nitrate (NO 3)	ppm
Turbidity	Ntu
pH	
Residual Chlorine	ppm
Total Alkalinity	ppm
Non-Carbonate Hardness	ppm
Total Hardness	ppm
Dissolved Solids	ppm
Conductivity	Micro-ohm / cm
Ethylene Glycol Percentage	ppm
Propylene Glycol Percentage	ppm

WATER SAMPLING – Performed in August

A third party laboratory shall be contracted to sample the Heating Hot Water and reported in accordance with ASTM D596 as follows:

Date of Sample	
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Aluminum (Al)	ppm
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Magnesium (Mg)	ppm
Carbonate (HCO 3)	ppm
Sulfate (SO 4)	ppm
Chloride (Cl)	ppm
Nitrate (NO 3)	ppm
Turbidity	Ntu
pH	
Residual Chlorine	ppm
Total Alkalinity	ppm
Non-Carbonate Hardness	ppm
Total Hardness	ppm
Dissolved Solids	ppm
Conductivity	Micro-ohm / cm
Ethylene Glycol Percentage	ppm
Propylene Glycol Percentage	ppm

ANNUAL INSPECTION – Performed in March
COMPREHENSIVE ANNUAL INSPECTION SERVICE

1. Report in with the Authority Representative.
2. Record and report abnormal conditions, measurements taken, etc.
3. Review logs with the Authority Representative for operational problems and trends.

1. General Assembly
- Inspect for leaks and report results.
- Calculate refrigerant loss rate per EPA guidelines and report to the customer.
- Repair minor leaks as required (e.g. valve packing, flare nuts).
- Visually inspect condenser coils for cleanliness.
- Grease the condenser fan bearings, if applicable.

2. Controls and Safeties
- Inspect the control panel for cleanliness.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Verify the working condition of all indicator/alarm lights, if applicable.
- Test the operation of the low water temperature safety device. Calibrate and record setting.
- Test the operation of the low evaporator pressure safety device(s). Calibrate and record setting.
- Check programmed parameters of SCM/SMM control, if applicable.

3. Lubrication System
- Check oil level in the compressor(s).
- Test oil for acid content and discoloration. Make recommendations to the customer based on the results of the test.
- Verify the operation of the oil heater. Measure amps and compare reading with the watt rating of the heater, if applicable.

4. Motor and Starter
- Clean the starter and cabinet.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Check the contactors for free and smooth operation.
- Check the tightness of the motor terminal connections.
- Meg the motor(s) and record readings.
- Verify the operation of the electrical interlocks.
- Measure voltage and record. Voltage should be nominal voltage ±10%.

STARTUP / CHECKOUT PROCEDURE – Peformed in May

1. Verify the operation of the oil heater(s), if applicable.
2. Verify full evaporator water system.
3. Verify the water flow rate through the evaporator.
4. Start the chiller.
5. Verify the starter operation.
6. Verify smooth operation of the compressors and fans.

7. Verify the operation of all timing devices.
8. Check the setpoint and sensitivity of the chilled water temperature control device.
9. Verify the settings on the UCM, if applicable.
10. Check the superheat and subcooling of the refrigerant circuit(s).
11. Verify full refrigerant circuit(s). Check sight glasses, if applicable.
12. Test the operation of the high condenser pressure safety device. Calibrate and record setting, if applicable.
13. Log the operating conditions after the system has stabilized.
14. Record the accumulated run hours of the compressor(s), if applicable.
15. Review operating procedures with operating personnel.
16. Provide a written report of the completed work, amount of time to repair, operating log, and indicate any uncorrected deficiencies detected.

SEASONAL START-UP – Performed in July and September
MID-SEASON RUNNING INSPECTION

1. Check the general condition of the unit.
2. Check the operation of the control circuit.
3. Check the operation of the motor(s) and starter(s).
4. Log the operating conditions after the system has stabilized.
5. Analyze the recorded data. Compare the data to the original design conditions.
6. Review operating procedures with operating personnel.
7. Provide a written report of completed work, amount of time to repair, operating log, and indicate any uncorrected deficiencies detected.

WATER SAMPLING – Performed in February

A third party laboratory shall be contracted to sample the Chilled Water and reported in accordance with ASTM D596 as follows:

Date of Sample	
Temperature	°F
Silica (SiO 2)	ppm
Insoluble	ppm
Iron, Total (Fe)	ppm
Aluminum (Al)	ppm
Calcium (Ca)	ppm
Magnesium (Mg)	ppm
Carbonate (HCO 3)	ppm
Sulfate (SO 4)	ppm
Chloride (Cl)	ppm
Nitrate (NO 3)	ppm
Turbidity	Ntu
pH	
Residual Chlorine	ppm
Total Alkalinity	ppm
Non-Carbonate Hardness	ppm
Total Hardness	ppm
Dissolved Solids	ppm
Conductivity	Micro-ohm / cm
Ethylene Glycol Percentage	ppm
Propylene Glycol Percentage	ppm

Cooling Tower

ANNUAL INSPECTION – Performed in March
COMPREHENSIVE ANNUAL INSPECTION SERVICE

1. Report in with the Authority Representative.
2. Record and report abnormal conditions, measurements taken, etc.
3. Review logs with the Authority Representative for operational problems and trends.

1. General Assembly
- Inspect and clean basin, fill media section, casings, control panel enclosure, fan sections and fan screens so that they are completely free of three dimensional solid or greasy matter.
- Inspect for leaks and report results.
- Repair minor leaks as required (e.g. valve packing, flare nuts).
- Visually inspect fill media for damaged areas.
- Grease the cooling tower fan bearings, if applicable.
- Provide water treatment for biological and corrosion / scaling control.

2. Controls and Safeties
- Inspect the control panel for cleanliness.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Verify the working condition of all indicator/alarm lights, if applicable.
- Test the operation of the low water temperature safety device. Calibrate and record setting.
- Test the operation of the low water level safety device(s). Calibrate and record setting.

3. Motor and Starter
- Clean the starter and cabinet.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Check the contactors for free and smooth operation.
- Check the tightness of the motor terminal connections.
- Meg the motor(s) and record readings.
- Verify the operation of the electrical interlocks.
- Measure voltage and record. Voltage should be nominal voltage ±10%.

STARTUP / CHECKOUT PROCEDURE – Peformed in May

1. Verify full evaporator water system.
2. Verify the water flow rate through the tower.
3. Inspect cold and hot water basins
4. Flush water distribution system / Inspect spray nozzles
5. Drain Basin and Piping
6. Inspect Air intake louvers / Combined inlet shields
7. Check and adjust water level in cold water basin
8. Check operation of make-up valve
9. Check and adjust bleed rate
10. Start the cooling tower.
11. Verify the starter operation.

12. Verify smooth operation of the pumps and fans.
    a) Check belt condition
    b) Check belt tension
    c) Lubricate fan shaft bearing
    d) Lubricate motor base adjusting screw
13. Verify the operation of all timing devices.
14. Check the setpoint and sensitivity of the condenser water temperature control device.
15. Log the operating conditions after the system has stabilized.
16. Review operating procedures with operating personnel.
17. Provide a written report of the completed work, amount of time to repair, operating log, and indicate any uncorrected deficiencies detected.

SEASONAL START-UP – Peformed in July and September
MID-SEASON RUNNING INSPECTION

1. Check the general condition of the unit.
2. Check the operation of the control circuit.
3. Check the operation of the motor(s) and starter(s).
4. Log the operating conditions after the system has stabilized.
5. Analyze the recorded data. Compare the data to the original design conditions.
6. Review operating procedures with operating personnel.
7. Provide a written report of completed work, amount of time to repair, operating log, and indicate any uncorrected deficiencies detected.

SHUTDOWN OF COOLING SYSTEM – Performed in November

1. Verify smooth operation of the fans.
2. Check the belts for tension, wear, cracks, and glazing.
3. Drain basin and piping.
4. Lubricate fan shaft bearings
5. Lubricate motor base adjusting screw.
6. Check Drive alignment

WATER SAMPLING – Performed in February

A third party laboratory shall be contracted to sample the Chilled Water and reported in accordance with ASTM D596 as follows:

Date of Sample	
Temperature	°F
Silica (SiO 2)	ppm
Insoluble	ppm
Iron, Total (Fe)	ppm
Aluminum (Al)	ppm
Calcium (Ca)	ppm
Magnesium (Mg)	ppm
Carbonate (HCO 3)	ppm
Sulfate (SO 4)	ppm
Chloride (Cl)	ppm
Nitrate (NO 3)	ppm
Turbidity	Ntu
pH	
Residual Chlorine	ppm
Total Alkalinity	ppm
Non-Carbonate Hardness	ppm
Total Hardness	ppm
Dissolved Solids	ppm
Conductivity	Micro-ohm / cm
Ethylene Glycol Percentage	ppm
Propylene Glycol Percentage	ppm

Pump

SEMI-ANNUAL INSPECTION – Performed in April & October
COMPREHENSIVE ANNUAL INSPECTION SERVICE

1. Report in with the Authority Representative.
2. Record and report abnormal conditions, measurements taken, etc.
3. Review logs with the Authority Representative for operational problems and trends.

1. General Assembly
- Inspect for leaks and report results.
- Repair minor leaks as required (e.g. valve packing, flare nuts).
- Grease the fittings. Fill both grease cavities through the fittings until the fresh grease comes out of the relief holes.
- Check the pump alignment

2. Controls and Safeties
- Inspect the control panel for cleanliness.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Verify the working condition of all indicator/alarm lights, if applicable.

3. Motor and Starter
- Clean the starter and cabinet.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Check the contactors for free and smooth operation.
- Check the tightness of the motor terminal connections.
- Meg the motor(s) and record readings.
- Verify the operation of the electrical interlocks.
- Measure voltage and record. Voltage should be nominal voltage ±10%.

SEMI-ANNUAL INSPECTION – Performed in April & October
COMPREHENSIVE ANNUAL INSPECTION SERVICE

1. Report in with the Authority Representative.
2. Record and report abnormal conditions, measurements taken, etc.
3. Review logs with the Authority Representative for operational problems and trends.

1. General Assembly
- Inspect for leaks and report results.
- Repair minor leaks as required (e.g. valve packing, flare nuts).
- Grease the fittings.
- Check the pump alignment
- Record Original Glycol Levels and refill with inhibited pre-mixed 40% Propylene Glycol.

2. Controls and Safeties
- Inspect the control panel for cleanliness.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Verify the working condition of all indicator/alarm lights, if applicable.

3. Motor and Starter
- Clean the starter and cabinet.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Check the contactors for free and smooth operation.
- Check the tightness of the motor terminal connections.
- Meg the motor(s) and record readings.
- Verify the operation of the electrical interlocks.
- Measure voltage and record. Voltage should be nominal voltage ±10%.

Appendix-E

APPENDIX E:
ASHRAE HVAC LIFE EXPECTANCY CHART

ASHRAE Equipment Life Expectancy chart

ASHRAE is the industry organization that sets the standards and guidelines for most all HVAC-R equipment.
For additional info about ASHRAE the website is www.ashrae.org .

Equipment Item	Median Years
Air conditioners	
Window unit	10
Residential single or Split	
Package	15
Commercial through-the wall	15
Water-cooled package	15
Heat Pumps	
Residential air-to-air	15
Commercial air-to-air	15
Commercial water-to-air	19
Roof-top air conditioners	
Single-zone	15
Multi-zone	15
Boilers, hot water (steam)	
Steel water-tube	24 (30)
Steel fire-tube	25 (25)
Cast iron	35 (30)
Electric	15
Burners	21
Furnaces	
Gas- or oil-fired	18
Unit heaters	
Gas or electric	13
Hot water or steam	20
Radiant Heaters	
Electric	10
Hot water or steam	25

Equipment Item	Median Years
Air terminals	
Diffusers, grilles, and registers	27
Induction and fan coil units	20
VAV and double-duct boxes	20
Air washers	17
Ductwork	30
Dampers	20
Fans	
Centrifugal	25
Axial	20
Propeller	15
Ventilating roof-mounted	20
Coils	
DX, water, or steam	20
Electric	15
Heat Exchangers	
Shell-and-tube	24
Reciprocating compressors	20
Packaged chillers	
Reciprocating	20
Centrifugal	23
Absorption	23
Cooling towers	
Galvanized metal	20
Wood	20
Ceramic	34

Equipment Item	Median Years
Air-cooled condensers	20
Evaporative condensers	20
Insulation	
Molded	20
Blanket	24
Pumps	
Base-mounted	20
Pipe-mounted	10
Sump and well	10
Condensate	15
Reciprocating engines	20
Steam turbines	30
Electric motors	18
Motor starters	17
Electric transformers	30
Controls	
Pneumatic	20
Electric	16
Electronic	15
Valve actuators	
Hydraulic	15
Pneumatic	20
Self-contained	10

Appendix-F

APPENDIX F:
SINGLE LINE DIAGRAM OF FACILITIES – HVAC

The following drawings to represent the typical equipment that the contractor will be responsible at each facility.

CI_SK-1: Central Inventory Controls Diagram
CI_SK-2: Central Inventory Controls Diagram
CI_SK-3: Central Inventory Controls Diagram

Int_SK-1: Interchange Controls Diagram
Int_SK-2: Interchange Controls Diagram
Int_SK-3: Interchange Controls Diagram
Int_SK-4: Interchange Controls Diagram

SA_SK-1: Service Area Controls Diagram

TMD1_SK-1: Turnpike Maintenance District 1 Controls Diagram
TMD1_SK-2: Turnpike Maintenance District 1 Controls Diagram

TMD2_SK-1: Turnpike Maintenance District 2 Controls Diagram
TMD2_SK-2: Turnpike Maintenance District 2 Controls Diagram
TMD2_SK-3: Turnpike Maintenance District 2 Controls Diagram

TMD3_SK-1: Turnpike Maintenance District 1 Controls Diagram
TMD3_SK-2: Turnpike Maintenance District 1 Controls Diagram

TMD5_SK-1: Turnpike Maintenance District 1 Controls Diagram
TMD5_SK-2: Turnpike Maintenance District 1 Controls Diagram

Appendix-G

APPENDIX G:
TESTING, ADJUSTING, AND BALANCING

New Jersey Turnpike Authority

Testing, Adjusting, & Balancing Requirements

Testing, Adjusting, & Balancing

Within the first three months of contract the Contractor is to hire an approved subcontractor with the approval of the Authority Representative that is an AABC or NEBB member to balance all Air Systems (Fans, Air Outlets, Duct Leakage, and Space Leakage) in accordance with AABC or NEBB National Standards. All final readings shall be within 5% of the drawing quantities. The contract shall use the attached sheets for balancing requirements. Proof of Certification of either AABC or NEBB must be available upon request to the Authority.

In addition the Contractor is to test the heating hot water and chilled water in accordance with ASTM E202-05 Standard Test Methods for Analysis of Ethylene Glycols and Propylene Glycols. Test to include at a minimum:

- Color of Fluid
- Clarity of Fluid
- Sediment Levels (over 5% is no longer suitable as a heat transfer fluid)
- Propylene Glycol Percentage (Desired Quantity 30 – 40%)
- Fluid Freeze Point
- Iron Inhibitor Concentration
- Copper Inhibitor Concentration
- Fluid pH
- Reserve Alkalinity
- Chloride Concentration
- Sulfate Concentration
- Hardness
- Presence of Nitrite or Nitrate

After this is complete the Contractor shall hire an approved subcontractor with the approval of the Authority Representative that is an AABC member to balance all Water Systems (Pumps, Coils, Piping, Valves, Heating Hot Water Systems, and Chilled Water Systems) in accordance with AABC National Standards. All final readings shall be within 5% of the drawing quantities. The contract shall use the attached sheets for balancing requirements.

The Balancing Turn-Over Documentation to include:

- Submit four certified test reports signed by Test and Balance Supervisor who performed TAB work.
- Include identification and types of instruments used and their most recent calibration date with submission of final test report. Provide copies of calibration certificates.
- Pressure profiles through all system components, including plenums, coils, filters, etc. with a system sketch indicating locations where readings were taken.

- Actual pressure difference manometer readings with corresponding Static pressure sensor readings taken simultaneously by Controls Contractor.
- Maintenance data: Include in maintenance manuals, copies of certified test reports.
- Space pressurization test reports shall include blower door reports for air quantities at positive and negative pressures.
- Duct leakage reports shall indicate percentage according to pressure class in accordance with ASHRAE.

Pre-TAB Checklist

Project Number
Building
System

Date Checklist Completed
Scheduled TAB Start Date

Item	Description	Complete/ Ready? Yes	No	Initial/ Date

1) System installation complete.
2) System is constructed and sealed in accordance with specifications .
3) System is accessible for testing.
4) As built drawings available for review.

Form completed by

Print Name

Company

Sign/ Date

Approved by

Print Name

Company

Sign/ Date

Print Name

Company

Sign/ Date

Send a copy of this form along with a copy of the as-built drawings showing the duct sections that have been tested to the TAB contractor.

1. HVAC Units & Built-Up Units	*Ready* *Yes*	*No*	*Date / By*
a) GENERAL			
Louvers installed			
Manual dampers adjusted and locked			
Automatic dampers operating, stroke set, positive shutoff checked			
Housing construction complete, all penetrations sealed			
Access doors installed and closed, (checked for leakage)			
Condensate drain piping and pan checked, "P" trap sized properly			
Unit is clean and free of dirt, debris, & shipping blocks			
b) FILTERS			
Type and size			
Number of filters			
Clean pressure drop ( ) Dirty pressure drop ( ) Use manufacturers data			
Frame type			
Temporary filters installed (construction filters)			
c) COILS (HYDRONIC)			
Size and rows			
Fin spacing and condition			
Obstruction and / or debris are cleared			
Airflow and direction			
Piping connected and tested for leakage			
Correct piping connections and flow direction			
All isolation and control/balance valves open			
Air vents installed and tested			
All air vented			
Provisions made for TAB measurements Per specifications and TAB contractors direction			
d) COILS (ELECTRIC)			
Sizes and construction			
Airflow direction			
Duct connections			
Safety switches			
Contactors and disconnect switches			
Electrical service and connections			
Obstruction and / or debris			
e) FANS			
Rotation			
Wheel clearance and balance			
Bearing and motor lubrication			
Drive alignment			
Belt tension			
Drive package set screws tight			
Belt guard in place			
Flexible duct connector alignment			
Starters and disconnect switches correct			
Electrical service and connections checked			
f) VIBRATION ISOLATION			

Spring height set
Shipping blocks removed
Base level and free

2 DUCT SYSTEMS	Ready Yes	NO	Date / By
a) GENERAL			
Manual dampers open and locked			
Access doors closed and tight			
Fire dampers open and accessible			
Terminal units open or set			
Registers and diffusers open and pattern set			
Turning vanes is square elbows			
Provisions made for TAB measurements			
Ductwork sealed and pressure tested as required			
b) ARCHITECTRUAL			
Windows installed and closed			
Doors closed as required			
Ceiling plenums installed and sealed			
Access doors closed and tight			
Air shafts and openings as required			

3 PUMPS	Ready Yes	NO	Date / By
a) MOTORS			
Rotation			
Lubrication			
Alignment			
Set screws tight			
Guards in place			
Starters and disconnect switches			
Electrical service and connections			
Variable speed drives programmed and started			
b) PIPING			
Correct flow and connections			
Leakage			
Isolation, control, and balance valves open			
Strainer clean and construction screen removed			
Air vented			
Flexible connectors installed and aligned			
System static pressure set (note value) ( )PSI			
c) BASES			
Vibration isolation			
Grouting			
Leveling			

4 HYDRONIC EQUIPMENT	Ready Yes	NO	Date / By
a) BOILERS			
Operating controls and devices			
Safety controls and devices			
Lubrication of fans and pumps			
Draft controls and devices			
Piping connections and flow			
Valves open or set			
Water make-up provisions			
Blow-down provisions			
Electrical connections			
b) HEAT EXCHANGERS			
Correct flow and connections			
Valves open or set			
Air vents or steam traps installed and tested			
Pressure tested			
Provisions made for TAB measurements			
c) COOLING TOWERS AND EVAPORATIVE CONDENSERS			
Correct flow and connections			
Isolation, balance, and control valves open			
Leakage			
Provisions made for TAB measurements			
Sump water level set			
Spray nozzles correct size and location			
Fan rotation tested			
Motor and or gear box lubrication			
Drives and alignment			
Belt guards in place			
Starters and disconnect switches			
Electrical connections			
Variable speed drives properly programmed and started			

5 REFRIGERATION EQUIPMENT	Ready Yes NO	Date / By
Crankcase heaters energized for a minimum of 24 hours		
Operating and safety controls and devices installed and tested		
Valves open		
Piping and connections leak checked		
Flexible connectors		
Oil level and lubrication		
Guards in place		
Vibration isolation		
Starters, contactors and disconnect switches		
Electrical connections		

6 HYDRONIC PIPING SYSTEMS	Ready Yes NO	Date / By
Hydrostatic testing complete and passed		
System static pressure set		
Relief or safety valve settings		
Make-up pressure set		
Compression tanks / air vented		
Steam traps and connections		
Strainers clean		
All valves open		
Provisions made for TAB measurements		

7 CONTROL SYSTEMS	Ready Yes NO	Date / By
Data centers operating		
Outdoor / return dampers set		
Economizer controls set		
Static pressure control set		
Space controls operating		
Complete system operating		
All sensors and transmitters calibrated		

8 OTHER CHECKS	Ready Yes NO	Date / By
a) Other trade or personnel notified of TAB work requirements		
b) Preliminary data complete		
c) Test report forms prepared		

NOTES:

Chiller Balancing Form

Chiller Number								
Location								
Fluid Type								
Date								
Technician								
Evaporator Data	Submitted	Measured	Submitted	Measured	Submitted	Measured	Submitted	Measured
GPM								
Entering Water Pressure								
Leaving Water Pressure								
Water ΔP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Entering Water Temperature								
Leaving Water Temperature								
Water ΔT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MBH Total Water	0	0	0	0	0	0	0	0
Condenser Data	Submitted	Measured	Submitted	Measured	Submitted	Measured	Submitted	Measured
GPM								
Entering Water Pressure								
Leaving Water Pressure								
Water ΔP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Entering Water Temperature								
Leaving Water Temperature								
Water ΔT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MBH Total Water	0	0	0	0	0	0	0	0

Test Instruments Used				
Description	Model No.	Asset No.	Date Of Calibration	Technician
Hydronic Data Multimeter				
Hydrodata Meter				
Temperature Instrument				

NOTES:

Hydronic Pump Test Sheet

System:		Mechanical	Approved	As Found	As Left
		Schedule	Submittal		
Serves:		Data	Data		
Pump	Manufacturer				
	Model Number				
	Serial Number				
	Size / Type				
	Volume Control				
	Impeller Size				
Motor	Manufacturer				
	Serial Number				
	Frame / Horsepower				
	RPM / Phase / HZ				
	Nameplate Voltage				
	Nameplate Amperage				
	SF PF NomEff				
Starter	Size / Overloads				
System Static Pressure					
Discharge	Discharge				
Shut	Suction				
	Ft. of Head			0.00	0.00
Discharge	Discharge				
Open	Suction				
	Ft. of Head			0.00	0.00
	Curve GPM / %				
	Main GPM / %				
Voltage	T1-2 T1-3 T2-3				
Amperage	T1 T2 T3				
	Corrected FLA.				
Final Data	Discharge				
	Suction				
	Ft. of Head			0.00	0.00
	Curve GPM				
	Main GPM / %				
Voltage	T1-T2 T1-T3 T2-T3				
Amperage	T1 T2 T3				
	Corrected FLA.				
	Brake Horsepower			0	0

Test Instruments Used

Description	Model No.	Asset No.	Date Of Calibration	Technician
Air Data Multimeter				
Volt / Amp. Meter				
Tachometer				

NOTES:

Hydronic Coil Test Sheet

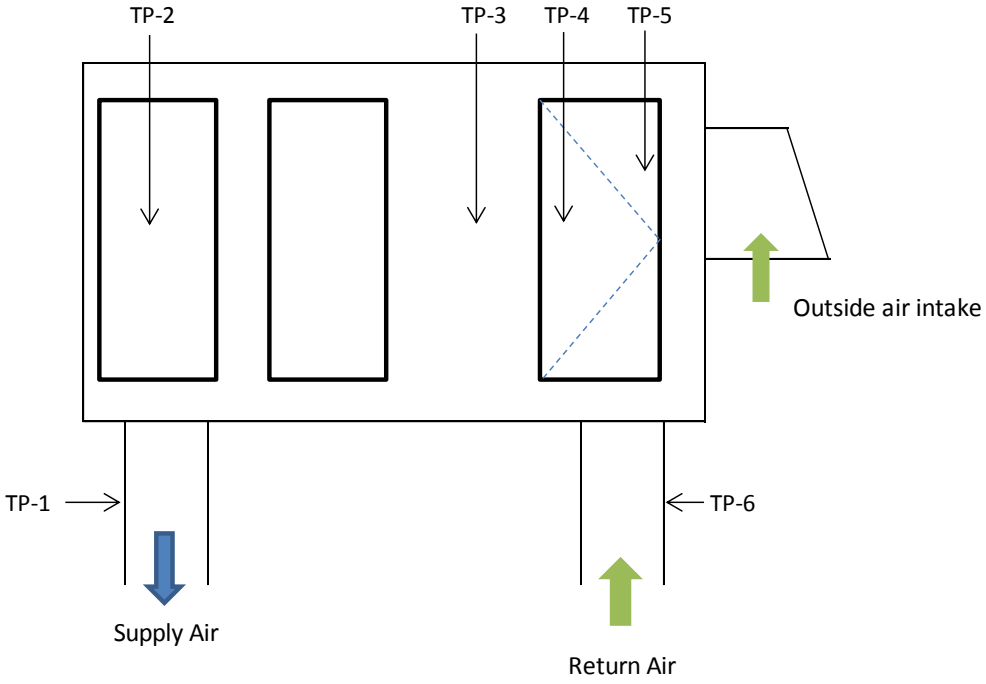
Coil Number									
Location									
Coil Type									
Date									
Technician									
		Submitted	Measured	Submitted	Measured	Submitted	Measured	Submitted	Measured
Air flow, CFM									
Entering Air Pressure									
Leaving Air Pressure inwc.									
Air Δ P									
Entering Air	Dry Bulb								
	Wet Bulb								
Leaving Air	Dry Bulb								
	Wet Bulb								
Air ΔT	Dry Bulb								
Return Air	Dry Bulb								
	Wet Bulb								
Outside Air	Dry Bulb								
	Wet Bulb								
GPM									
Entering Water Pressure									
Leaving Water Pressure									
Water ΔP									
Entering Water Temperature									
Leaving Water Temperature									
Water ΔT									
MBH Sensible	Air								
MBH Total	Air								
MBH Total	Water								

Test Instruments Used				
Description	Model No.	Asset No.	Date Of Calibration	Technician
Air Data Multimeter				
Hydrodata Meter				
Temperature Instrument				

NOTES:

Packaged Rooftop Unit / Make-up Air Unit

****Diagram to be modified to match System As-Built Configuration***



Location		As Found	As Left
Supply air duct	TP-1		
Fan inlet	TP-2		
Between coils	TP-3		
Filter leaving	TP-4		
Filter Entering	TP-5		
Return air duct	TP-6		

Heating Coil

Cooling Coil

Filters ---------

Packaged Rooftop Unit / Make-up Air Unit – Continued

**Provide One Form per Fan.*

System:		Mechanical	As Found	As Left
		Schedule		
Serves:		Data		
Unit	Manufacturer			
	Model Number			
	Serial Number			
	Size / Type			
Motor	Manufacturer			
	Serial Number			
	Frame / Horsepower			
	RPM / Phase / HZ			
	Nameplate Voltage			
	Nameplate Amperage			
	SF / PF / NomEf			
Starter	Size / Heaters			
Sheaves	Motor Sheave			
	Hub / Shaft Size			
	Sheave Adjustment			
	Fan Sheave			
	Hub / Shaft Size			
	Belts - Size / Quantity			
	Shaft Center Line			
	Base Adjustment			
Data	SA / % Design		#DIV/0!	#DIV/0!
	RA / % Design		#DIV/0!	#DIV/0!
	Outlet Total		#DIV/0!	#DIV/0!
	OSA / % Design		#DIV/0!	#DIV/0!
	Discharge Sp -Tp			
	Suction Sp - Tp			
	Measured Fan SP/TP			
	RPM - Fan			
	RPM - Motor			
Voltage	T1-T2 / T1-T3 / T2-T3			
Amperage	T1 / T2 / T3			
Corrected Full Load Amperage			#DIV/0!	#DIV/0!
Approximate BHP			0.00	0.00

Test Instruments Used

Description	Model No.	Asset No.	Date Of Calibration	Technician
Air Data Multimeter				
Volt / Amp. Meter				
Tachometer				

Comments

Room Air Balance Summary

Building	Room No.	Use	Air Source	Supply CFM	Exhaust CFM	Room Volume	Air Changes Per Hour	Humidity Control	Date Evaluated	Notes

Instrument	Model No.	Asset No.	Calibration Date	Technician
Airdata Multimeter				
Airdata Multimeter				

Duct Traverse (Rectangular)

TRAVERSE NUMBER:				DATE:			TECHNICIAN:				
SYSTEM / UNIT:				SERVICE:			LOCATION:				
STATIC PRESSURE:				AIR TEMP.			BAROMETRIC P.:				
DUCT SIZE:		AREA in Sq.Ft.									
DESIGN FPM:	#DIV/0!	DESIGN CFM:		MEASURED FPM:	#DIV/0!		MEASURED CFM:	#DIV/0!			
		NUMBER OF READINGS				TOTAL FPM	0				
TIP LOCATION											
		1	2	3	4	5	6	7	8	9	10
	1										
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
	10										
		0	0	0	0	0	0	0	0	0	0

Comments:

Test Instruments Used

Description	Model No.	Asset No.	Date Of Calibration	Technician
Air Data Multimeter				
Pitot Tube				
Velocity Grid				

Duct Traverse (Round)

TRAVERSE NUMBER:					DATE:			TECHNICIAN:	
SYSTEM / UNIT:					SERVICE:			LOCATION:	
DUCT SIZE:		AREA in Sq.Ft.	0.000		AIR TEMP.:			BAROMETRIC P.:	
DESIGN FPM	#DIV/0!	DESIGN CFM			AS FOUND SP.			AS LEFT SP.	
					AS FOUND CFM	#DIV/0!		AS LEFT CFM	#DIV/0!

TIP LOCATION		AS FOUND V	AS FOUND H	AS LEFT V	AS LEFT H
0.00	1				
0.00	2				
0.00	3				
0.00	4				
0.00	5				
0.00	6				
	7				
	8				
	9				
	10				
		0	0	0	0

AS FOUND	
VERTICAL TOTAL	0
HORIZONTAL TOTAL	0
TOTAL	0
NO OF POINTS	
AVERAGE	#DIV/0!

AS LEFT	
VERTICAL TOTAL	0
HORIZONTAL TOTAL	0
TOTAL	0
NO OF POINTS	
AVERAGE	#DIV/0!

Comments:

Test Instruments Used

Description	Model No.	Asset No.	Date Of Calibration	Technician
Air Data Multimeter				
Pitot Tube				

APPENDIX H
VENTILATION & COOLING EQUIPMENT LIST

APPENDIX I
BOILER EQUIPMENT LIST

NEW JERSEY TURNPIKE AUTHORITY

DRAFT AGREEMENT
FOR
MAINTENANCE OF VENTILATION & AIR CONDITIONING EQUIPMENT
RM # 121895

THIS AGREEMENT, dated and effective _____, by and between the New Jersey Turnpike Authority, a body corporate and politic of the State of New Jersey having its principal office at 581 Main Street, Woodbridge, New Jersey (the "Authority") and _____ , a corporation of the State of_____ having principal offices located at _____ (the "Contractor").

WITNESSETH, that the said Contractor, for and in consideration of the payments hereinafter specified, hereby covenants, and agrees to furnish the labor, materials, equipment, and insurance to provide for the services of **Maintenance of Ventilation & Air Conditioning Equipment** specified in this Agreement in strict conformance with the Invitation to Bid/Request for Bids and the Instruction to Bidders attached hereto and made a part hereof.

The term of this Agreement shall commence on the effective date and terminate two (2) years there-from, unless earlier terminated as provided in the Invitation to Bid/Request for Bids. The Authority may opt, at its sole discretion, to renew this Agreement for two (2) additional one (1) year terms.

The Contractor agrees to make payment of all proper charges for labor and materials required in the aforementioned work, and to defend, if so directed by the Authority, and to indemnify and save harmless the Authority, its officers, employees and agents against and from all damages and liabilities, threatened, pending or completed actions, proceedings or suits of every kind and all costs incurred in the defense, settlement or satisfaction thereof (including attorney's fees and court costs), including damages and liabilities, actions, proceedings, suits, costs, claims and judgments of officers, employees or agents of the Contractor and of its subcontractors, and all damages, liabilities, actions, proceedings, suits costs, claims or judgments to which the Authority or any of its officers, employees, or agents may be subjected by reason of injury to the person or property of others resulting from the performance of the services, or the acts or omissions, whether negligent or not, of the Contractor, its officers, employees, or agents, servants, and subcontractors; or of the Authority, its officers, employees and agents, or of third persons, or through any improper or defective machinery, implements or appliances used in the services; and the Contractor shall further defend, if so directed by the Authority, indemnify and save harmless the Authority, its officers, employees and agents from all damages, liabilities, actions, proceedings, suits, costs, claims or judgment of any kind, which may be brought or instituted by any subcontractor, material man, or laborer who has performed work or furnished materials in or about the services or by, or on account of, any claims or amount recovered for any infringement or patent, trademark or copyright.

Any such money due to the Contractor under and by virtue of the Agreement as shall be considered necessary by the Authority may be retained by the Authority and held until such suits, proceedings, actions, claims or amounts shall have been settled, and suitable evidence to that effect furnished to the Authority. The obligations of this paragraph shall survive the expiration, termination, or rescission of this Agreement.

In consideration of the premises, the Authority hereby agrees to pay, as sole compensation for the performance of the services, payments for the actual quantity of authorized work performed, as provided in the Invitation to Bid/Request for Bids, at the prices for the services in the proposal.

This Agreement is to be binding upon the Authority, its successor or successors, and upon the Contractor and its heirs, executor, administrators, successor or successors, and is voidable and may be terminated by the Authority, in accordance with the terms of the Invitation to Bid/Request for Bids, or upon violation by the Contractor of any statute relative thereto.

IN WITNESS WHEREOF, the parties have caused their duly authorized representatives to execute this Agreement and to affix their respective corporate seals thereto on the day and year first above written.

ATTEST:
AUTHORITY

NEW JERSEY TURNPIKE

_____

Sheri Ann Czajkowski
Secretary to the Authority

BY_____
Joseph W. Mrozek
Executive Director

[Corporate Seal]

ATTEST:

_____
Company Name

_____

Name
Title

BY_____
Name
Title

[Corporate Seal]

SECTION III
NO RESPONSE BID SURVEY

BID REQUISITION NUMBER: RM # 121895

PROPOSAL TITLE: MAINTENANCE OF VENTILATING & AIR CONDITIONING EQUIPMENT

If you do not choose to respond to this Bid, please complete the form below:

Name of Company_____

Reason you did not respond (Check all that apply)

_____ Cannot supply product or service

_____ Cannot meet technical specifications

_____ Cannot meet delivery specifications

_____ Cannot meet legal requirements
(i.e. Bid/performance/security/insurance, etc.)

_____ Cannot provide a competitive price at this time

_____ Interested in receiving specifications for informational purposes only

_____ Insufficient lead time to respond

_____ Other:(please be specific) _____

_____

_____

Do you wish to remain on our mailing list?

_____Yes _____No

Additional comments: _____

_____

_____

_____

Signed :(optional)_____

Company:_____

Exception Form: Vendors may list proposed equivalent items below for consideration by the Authority, and should include the item number, item description, manufacturer's name, model number and packaging quantities of those items which the vendor proposes to substitute. Vendors may not use this form to attach conditions, limitations, or other provisos to their bid. Please be advised that any proposed equivalent or other exceptions that are deemed to be a material deviation from the specifications shall be a mandatory cause for rejection of the bid, and the vendor proceeds at its own risk

Delivery Date Exception _____

Warranty Date Exception_____

Vendor's Name_____

Signature of Vendor Responsible Officer_____

Date_____